



## COMAU'S NEW MI.RA/DEXTER ENABLES INTUITIVE AND EASY PROGRAMMING OF COMPLEX ROBOTIC APPLICATIONS

- Thanks to innovative metalanguage based on AI algorithms, MI.RA/Dexter optimizes the interaction between operators and robotic systems
- Unlike traditional computer languages, the software can be used without the need for specific IT or programming knowledge
- By enabling simplified programming of robotic applications, it reduces costs and streamlines deployment
- MI.RA/Dexter and Racer-5 COBOT were used to automate and facilitate quality control of the infotainment system for the New Fiat 500 full-electric

**Grugliasco (Turin), December 15, 2021** – Comau unveils MI.RA/Dexter, a powerful software program based on AI algorithms that makes man-machine communication easier while optimizing industrial operations. Reflecting Comau's commitment to simplified automation, MI.RA/Dexter is a metalanguage that makes robotics more accessible for companies of all sizes by translating human language syntax into robot syntax. This enables operators to easily program a robotic system using simple and intuitive controls, such as *look* at an object, *touch* a specific point in space, *listen* to voice recognition operations, and *reproduce* and execute complex actions. The simplified programming interface also allows the operator to quickly adapt, adjust and correct the actions of the robot in real time, optimizing work cycle efficiency.

Given that MI.RA/Dexter does not require specific competence in IT or robotics, it enables customers to reduce or eliminate dedicated robot programming costs. It also helps streamline the creation of complex programs required for interacting with robotic arms, and can be used to program any industrial technology in a smart and straightforward way.

*"With MI.RA/Dexter, complex technology becomes more accessible and less expensive thanks to the user-friendly software interface and metalanguage syntax,"* said Giovanni Di Stefano, Comau's Chief Innovation Officer. *"The intuitive system, which is based on AI algorithms and can be used in virtually any industrial sector, also grants real-time adjustment of the process parameters for better operative quality and efficiency."*

MI.RA/Dexter was recently used by quality control operators to program a complex robotic cell for the New Fiat 500 full-electric. The customer tasked Comau with automating the testing and control process for the vehicle's infotainment system. These procedures are typically long, repetitive and carried out manually, with high costs and a significant margin of error. Comau's solution combined an NJ-220 robot in its Safe version with a Racer5 COBOT mounted on its wrist to carry out automated testing activities inside the car, increasing the efficiency, traceability and repeatability of the procedure. The collaborative





system also helps ensure full compliance with the testing process by objectively assisting the operator in completing each assigned task. To do so, the system includes devices that feature an “almost human” sensitivity, such as a vision system for the validation of infotainment apps, a microphone and speaker for the recognition of voice commands, and a gripper for delicate contact operations. Finally, the inherent safety features of the 6-axis articulated cobot eliminate the need for protective barriers, which reduces both the overall footprint and the safety costs.

The MI.RA/Dexter programming language allowed the operators to manage the complex robotic system autonomously. Among the activities was the safe management of the actions that the collaborative robot had to perform in close contact with the operator and the automation and subsequent optimization of the required testing tasks. It is part of the Comau MI.RA (Machine Inspection Recognition Archetypes) family, which also includes other digital tools and advanced-technology vision systems designed for the Smart Factory.

#### About Comau

Comau, a member of Stellantis, is a worldwide leader in delivering advanced industrial automation products and systems. Its portfolio includes technology and systems for electric, hybrid and traditional vehicle manufacturing, industrial robots, collaborative and wearable robotics, autonomous logistics, dedicated machining centers and interconnected digital services and products able to transmit, elaborate and analyze machine and process data. With over 45 years of experience and a strong presence within every major industrial country, Comau is helping manufacturers of all sizes in almost any industry experience higher quality, increased productivity, faster time-to-market and lower overall costs. The company’s offering also extends to project management and consultancy, as well as maintenance and training for a wide range of industrial segments. Headquartered in Turin, Italy, Comau has an international network of 6 innovation centers, 5 digital hubs, 9 manufacturing plants and employs more than 9,000 people in 13 countries. A global network of distributors and partners allows the company to respond quickly to the needs of customers, no matter where they are located throughout the world. Through the training activities organized by its Academy, Comau is also committed to developing the technical and managerial knowledge necessary for companies to face the challenges and opportunities of Industry 4.0.

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